

**THE FOLLOWING WOOD PRODUCTS STUDY WAS  
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**Employment and Labor Income  
in Montana's Forest Products Industry:  
Current Conditions and Potential Impacts  
of a Revolving Loan Fund**

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## Introduction

The Bureau of Business and Economic Research (BBER) at the University of Montana has prepared this report at the request of the Missoula Area Economic Development Corporation (MAEDC). The purpose of this report is to provide information about Montana's forest products industry and the potential impacts that a revolving loan fund (RLF) would have on employment and worker earnings in that industry. The report includes:

- estimates of current and recent employment and worker earnings directly engaged in the harvesting and processing of timber in Montana, with particular emphasis on firms that would be eligible for the proposed RLF
- an estimate of the number of employees that existing eligible timber-processing facilities in Montana would be able to retain and restore during 2009 and 2010 with funds from the proposed RLF
- an estimate of the employment and labor income impacts that the proposed RLF would have on Montana's integrated forest products industry
- an estimate of the total funds that existing eligible timber-processing facilities in Montana would seek during 2009 and 2010 under the proposed RLF

Information for this report has been compiled from publicly available and private sources. Confidential (firm-specific) information is summarized and reported in aggregate to avoid the disclosure of proprietary information. The information sources used in this report include:

- data collected by MAEDC from a subset of firms that would seek money from the RLF
- periodic studies of Montana's forest products industry conducted by BBER
- the Regional Economic Information System (REIS) maintained by the Bureau of Economic Analysis, U.S. Department of Commerce
- County Business Patterns (CBP) of the U.S. Census Bureau
- the Quarterly Census of Employment and Wages (QCEW) from the U.S. Department of Labor, Bureau of Labor Statistics
- various reports published by RISI (Resource Information Systems Inc.), Random Lengths Publications, and the Western Wood Products Association (WWPA).

**Background**

Management of Montana's forested lands is highly dependent upon the various forest products industry sectors. Unlike several of the states in the southern Rocky Mountains, Montana still has the capacity and capability within the sectors of the forest products industry necessary to support forest management activities at the landscape level (Keegan et al. 2005, 2006). These sectors plan and conduct forest management activities, harvest and haul timber, process logs into finished products, and utilize mill residuals.

Montana's forest products industry is highly integrated, with individual sectors relying on other sectors as well as on timber from Montana's forested landscape (Spoelma et al. 2008). For example, the forestry and logging sector is dependent not only on an available supply of timber, but also on having sufficiently sized and diversified wood products and paper manufacturing sectors to purchase and utilize harvested trees. Likewise, wood products manufacturers, like sawmills and plywood plants, rely on the forestry and logging sector to harvest and deliver logs to the mills and count on the paper (linerboard) manufacturing and other components of the manufacturing sector (e.g., producers of particle board and medium-density fiberboard [MDF]) to purchase and utilize mill residuals (e.g., sawdust and clean chips).

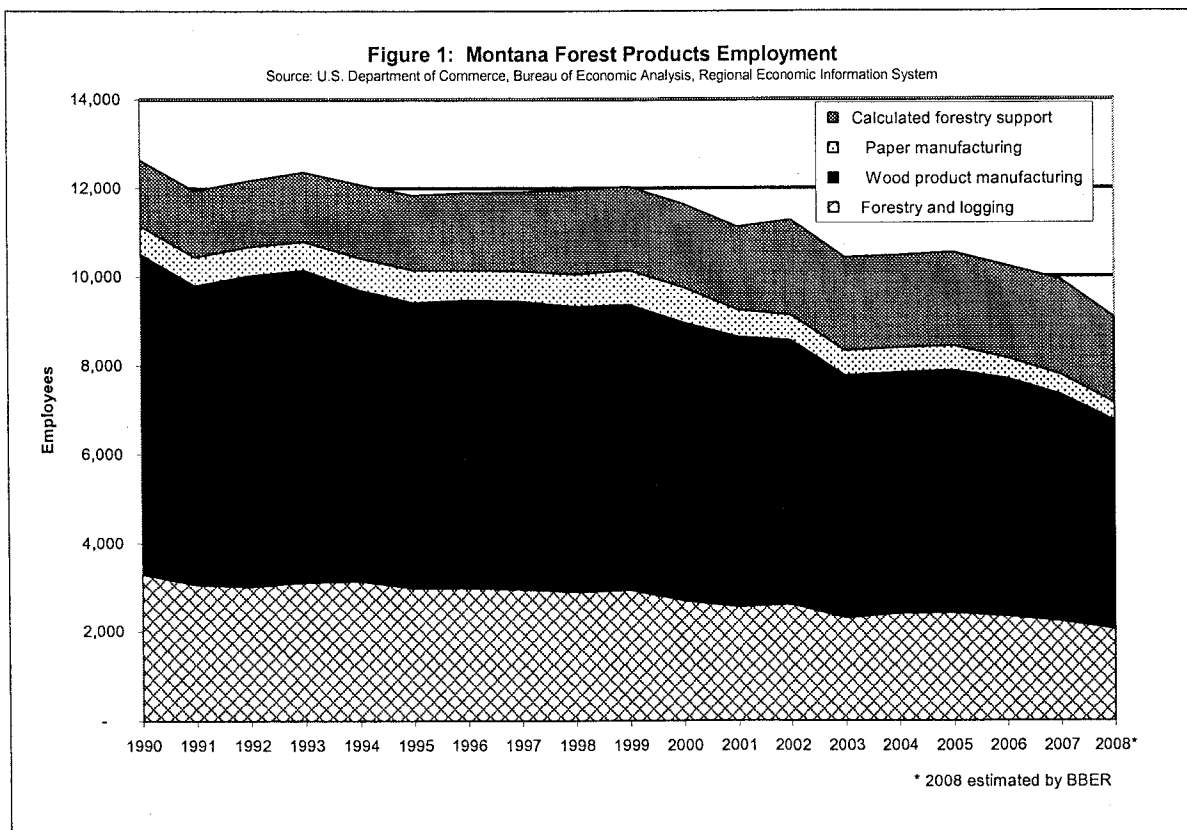
The existing forest products industry in Montana makes it possible for both public and private landowners to achieve broad land management goals (e.g., fire hazard reduction, ecosystem restoration, watershed protection, post-fire rehabilitation, wildlife and fish habitat restoration, recreation enhancement and revenue generation) by purchasing timber from forest landowners (Fiedler et al. 2004; Keegan et al. 2004). In short, the sustainability of Montana's forests is dependent on the existence of the state's integrated industry which both supports and relies on a well-paid, highly-skilled workforce.

**Forest Products Employment and Worker Earnings**

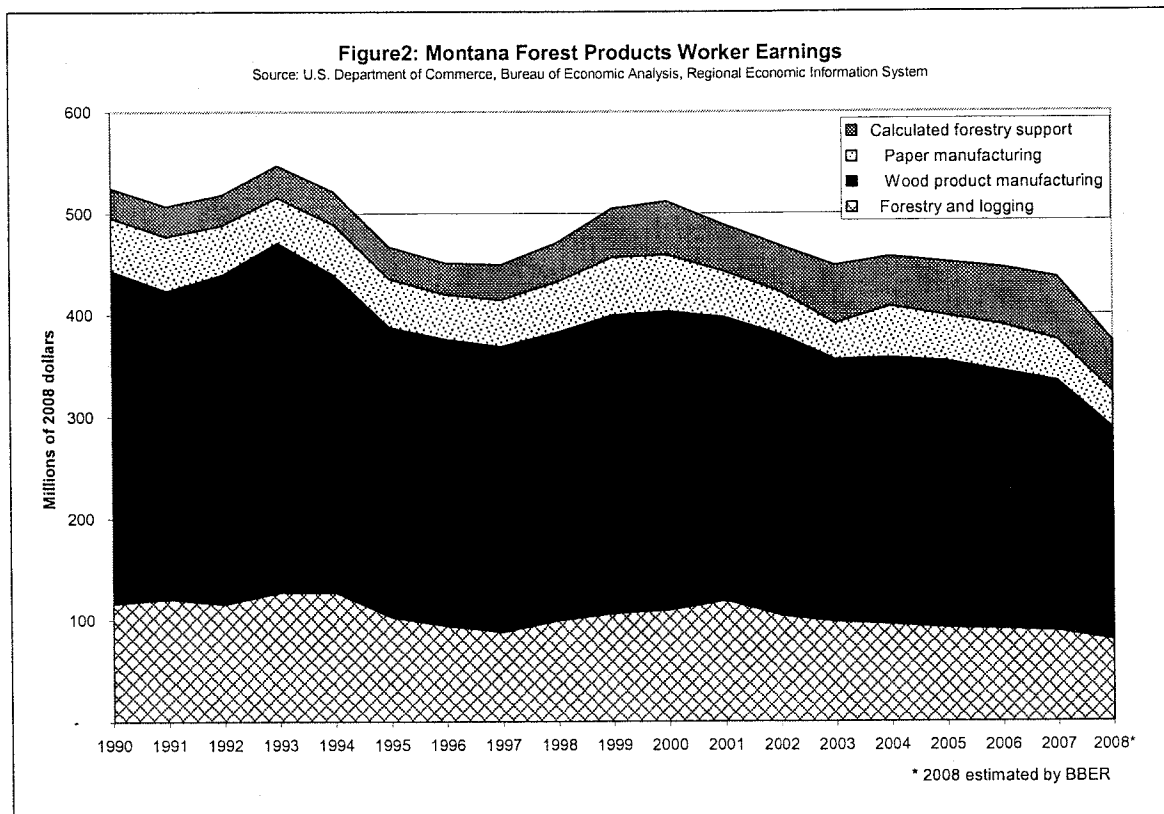
Montana's forest products industry employs more than 9,000 people, pays better than average wages, and is an important component of the state's economic base. The forest products industry provides an average earnings per employee of \$40,000 to \$45,000 per year in Montana (Morgan et al. 2008b). This is about 30 percent higher than the average private sector worker earnings (\$30,000 to \$33,000 per year) in Montana. Employment and worker earnings in wood

products and paper manufacturing also account for one-fifth to one-quarter of Montana's entire manufacturing industry (Polzin 2008).

Direct employment in the harvesting and processing of timber and manufacturing of wood and paper products in Montana has declined sharply since 2005 (Figure 1), following trends in U.S. home-building, domestic lumber consumption, and in-state timber harvest (Morgan et al. 2008a and 2009). In 2005, employment was approximately 10,500; while the 2008 figure is estimated to be about 9,100 workers. Wood products and paper manufacturing employment—at sawmills, plywood plants, linerboard and reconstituted panel mills, log home facilities, post and pole yards, log furniture manufacturers, and various other facilities—are the largest component of the forest products industry, accounting for more than 5,000 (56 percent of) employees in the forest products industry. Employment in forestry and logging accounts for another 2,000-plus (22 percent of) employees in Montana's forest products industry.



Worker earnings (in constant 2008 dollars) from the harvesting and processing of timber and manufacturing of wood and paper products in Montana have also declined since 2005 (Figure 2). In 2005, worker earnings were slightly more than \$451 million; while the 2008 figure is estimated to be about \$380 million. Wood products and paper manufacturing account for about 66 percent of labor income in the forest products industry. Forestry and logging accounts for another 20 percent of the forest products industry total.



### Benefits of the Proposed Revolving Loan Fund (RLF)

The “independent” wood products manufacturing facilities in Montana that would be eligible for the proposed RLF account for approximately 30 percent of total wood products and paper manufacturing employment and 45 percent of timber-processing capacity in the state. Thus the RLF has the potential to directly benefit one-third to one-half of Montana’s wood products and paper manufacturing industry, with an estimated 1,100 to 1,500 jobs retained and

another 500 to 700 jobs restored. The 1,600 to 2,200 jobs retained or restored through the RLF represent approximately \$73 to \$101 million in worker earnings.

The proposed RLF would also indirectly benefit a much larger portion of the state's forest products industry because of the integrated and inter-dependent nature of the industry. For example, the linerboard, MDF, and particleboard facilities—that rely on the sawmills and plywood plants for mill residuals and employ upwards of 800 Montanans—would benefit because their raw material suppliers would remain viable. These 800 employees account for another \$50 to \$55 million in labor income. Likewise, loggers and trucking firms—that harvest and transport logs and mill outputs and employ well over 2,000 people throughout the state—would benefit by the retention of purchasers for the logs and transportation services they provide. These 2,000-plus employees represent \$80 to \$85 million in labor income.

Ultimately, public and private forest landowners and the forest dependent-communities, with tens of thousands of citizens throughout Montana, would benefit from retention of the integrated industry that provides revenue and the ability to manage forests within the state. Retention of the industry will also enhance private landowners' ability to maintain their forested lands as forests, rather than having to sell, sub-divide, or convert the land to developed uses.

#### **Estimate of Total Value Needed in Proposed Revolving Loan Fund**

The subset of firms that MAEDC surveyed account for roughly 5 percent of Montana's wood products facilities, 16 percent of total wood products and paper manufacturing employment, and slightly less than 25 percent of timber-processing capacity in the state. These firms also represent 50 percent of the mill employment and 53 percent of the timber-processing capacity that would be eligible for funds from the RLF. The aggregate funding sought by the firms MAEDC surveyed is approximately \$32.4 million. Given that this subset of firms represents approximately one-half of the employment and capacity of eligible firms, and assuming that the financial situation of the remaining eligible independent firms would be similar, the minimum amount of funds to be made available through the RLF program should be no less than \$64.8 million, in order to provide sufficient funds for all eligible firms.

A danger or draw-back of under-funding the RLF would be that not enough funds would be available to the eligible firms that may apply. This could lead to a situation where firms that play critical roles as employers and aids to forest management in their local areas are unable to

acquire sufficient funds, thus limiting the overall effectiveness and positive impact of the RLF program.

### **Limitations of the Proposed Revolving Loan Fund**

Aside from the financial risks to the lender associated with the possibility of loan default, the proposed RLF poses minimal direct risk to Montana's forest products industry, forest landowners, and forests. However, without an appreciable increase in both the demand for wood products (e.g., increase in housing and lumber markets) and the availability of local timber (i.e., volume of wood sold from forests within 100 to 150 miles of Montana mills) over the next several years, most sectors of Montana's forest products industry may not be able to recover from the current situation.

The RLF will help Montana firms overcome the current forest products situation by providing funds to cover operating costs, restructure debt, and fill the revenue gap during this period of low lumber prices and slack demand. The RLF can also help firms procure local timber that is over-priced relative to the price of finished products. The high price of timber in Montana is due in part to timber availability that has been constrained by historically low timber harvest levels on federally managed lands within the state, leading local mills to over-bid for timber in the short-run so as to fill orders and remain in business.

This RLF, however, does not address the long-term issue of decreased timber availability from federal lands that has been plaguing Montana's forest products industry since the 1990s. Actions that effectively boost the availability and affordability of wood—both sawtimber and woody biomass—from federal lands must be undertaken by federal legislators and the responsible executive agencies, if the forest products industry and capability to conduct forest management in Montana is to be retained beyond the window of relief provided by the RLF program. Financial and personnel support that enhance federal agencies' completion of necessary environmental analyses and achievement of wood-producing forest management activities should be considered necessary complements to the proposed RLF program.

A second issue the RLF does not directly address is the current low demand for wood products that is associated with the economic downturn and record-low level of U.S. housing starts. This topic is addressed in detail in a companion report on the timing and magnitude of recovery of U.S. housing and wood products markets.

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